

# 2SK3064

## Silicon N-Channel MOS FET

Secondary battery pack (Li ion battery, etc.)

For switching

### ■ Features

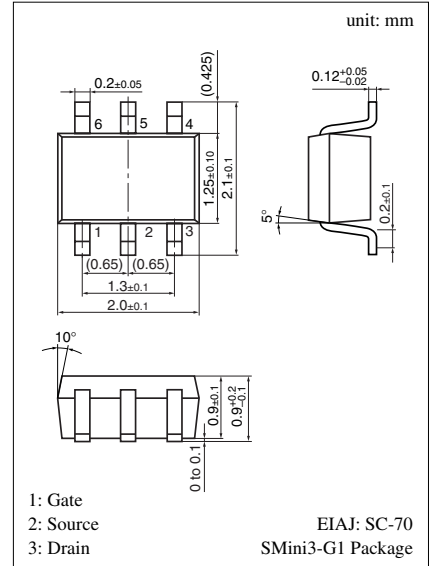
- High-speed switching
- S-mini type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing.
- Low-voltage drive ( $V_{th}$ : -1 to 2V)
- Low Ron

### ■ Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                   | Symbol    | Rated       | Unit             |
|-----------------------------|-----------|-------------|------------------|
| Drain to Source voltage     | $V_{DS}$  | 30          | V                |
| Gate to Source voltage      | $V_{GSO}$ | $\pm 20$    | V                |
| Drain current               | $I_D$     | 100         | mA               |
| Max drain current           | $I_{DP}$  | 200         | mA               |
| Allowable power dissipation | $P_D$     | 150         | mW               |
| Channel temperature         | $T_{ch}$  | 150         | $^\circ\text{C}$ |
| Storage temperature         | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

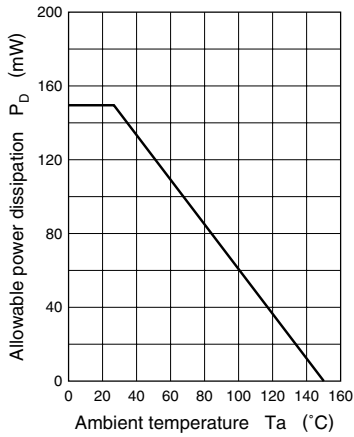
### ■ Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

| Parameter                     | Symbol       | Conditions  | min | typ | max     | Unit          |
|-------------------------------|--------------|---|-----|-----|---------|---------------|
| Drain current                 | $I_{DSS}$    | $V_{DS} = 30\text{V}, V_{GS} = 0$                                       |     |     | 0.1     | $\mu\text{A}$ |
| Gate cut-off current          | $I_{GSS}$    | $V_{GS} = \pm 20\text{V}, V_{DS} = 0$                                   |     |     | $\pm 1$ | $\mu\text{A}$ |
| Gate threshold voltage        | $V_{th}$     | $V_{DS} = 5\text{V}, I_D = 1\mu\text{A}$                                | 1   |     | 2       | V             |
| Forward transfer admittance   | $ Y_{fs} $   | $V_{DS} = 5\text{V}, I_D = 10\text{mA}$                                 | 15  |     |         | mS            |
| Drain to source ON-resistance | $R_{DS(on)}$ | $V_{DS} = 5\text{V}, I_D = 10\text{mA}$                                 |     | 30  | 50      | $\Omega$      |
| Turn-on time                  | $t_{on}$     | $V_{DD} = 5\text{V}, V_{GS} = 0 \text{ to } 5\text{V}, R_L = 200\Omega$ |     | 150 |         | ns            |
| Turn-off time                 | $t_{off}$    | $V_{DD} = 5\text{V}, V_{GS} = 0 \text{ to } 5\text{V}, R_L = 200\Omega$ |     | 35  |         | ns            |

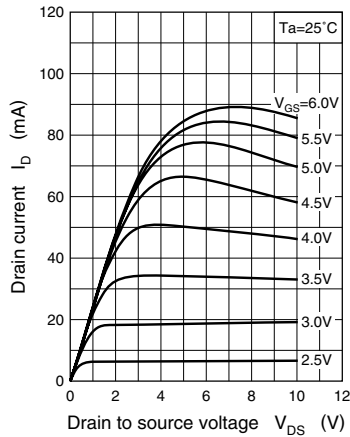


Marking Symbol: 2D

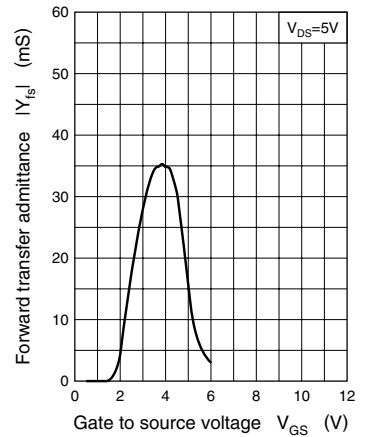
$P_D - T_a$



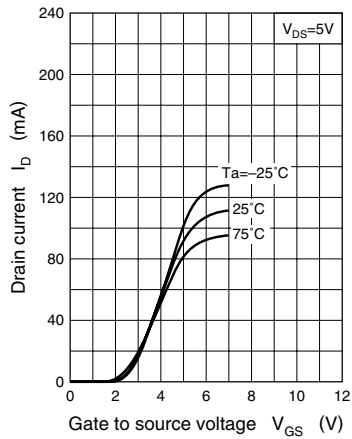
$I_D - V_{DS}$



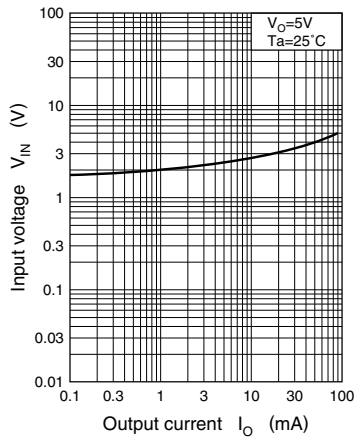
$|Y_{fs}| - V_{GS}$



$I_D - V_{GS}$



$V_{IN} - I_O$



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